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Clarence A Green
Perman & Green
425 Post Road
Fairfield, CT 06430

EXAMINER

ODLAND, DAVID E

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 12/08/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/689,447

Applicant(s)

SEBIRE, BENOIST

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Objections

1. Claims 9 and 13 are objected to because of the following informalities: Claims 9,10 and 13 recite "...transmitting the header...using same radio bursts as the aggregated coded data block..." This is improper English grammar. The term -the- should be inserted between terms 'using' and 'same'.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1,5,6,11,17,19,23,24 and 25 all recite the terms "using which". These terms make the claims confusing. For instance, claim 1 recites "...the number of radio bursts, using which a data block is transmitted..." in line 10. It is unclear what is meant by 'using which a data block is transmitted'.

Claim 2 recites, in lines 16-19, that each aggregated coded block consists of at least one part. This implies that the block could conceivably comprise only a single part. However, the claim goes on to recite that the block consists of a number of complete coded and partial coded parts. Therefore, it is unclear how there could be both of these coded parts if there is only one part. Furthermore, claim 2 recites "...in such a way that the sum of part-specific numbers..." in

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line 9. This limitation is confusing since the claim previously recites that the block only has one part-specific number and not part-specific *numbers*.

Claim 7 recites "...said selected packet data channel specific number..." in line 5. There is a lack of antecedent basis for this limitation in the claim.

Claims 11-13 and 15 recite a 'designation' of the bursts. In the context it is recited in the claim, it is unclear what is meant by a 'designation' and how the bursts are related to it.

Claim 11 recites "...the mobile station..." in line 3. There is a lack of antecedent basis for this limitation in the claim.

Claims 13 and 15 recite that the radio bursts are "...communicated to the mobile station with said header." It is unclear how a mobile station can have a header.

Claim 14 recites "...the number of downlink radio bursts..." in line 1. There is a lack of antecedent basis for this limitation in the claim.

Claim 15 recites "...the number of uplink radio bursts..." in line 1. There is a lack of antecedent basis for this limitation in the claim.

Claim 16 recites "...which second and third identifiers said header of a downlink aggregated coded data block comprises..." in lines 3 and 4. It is unclear what this means. Claim 16 also recites "...said predetermined number of uplink radio bursts..." in lines 6 and 8. There is a lack of antecedent basis for this limitation in the claim. Lastly, claim 16 recites "...said third identifier..." in line 11. It is unclear which third identifier is being referred to since the claim recites a plurality of third *identifiers* earlier in the claim (in line 3).

Referring to claim 17 it is unclear how the number of bursts in the uplink message is transmitted in a downlink block. Note, it appears as though the claim should recite that the

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number of uplink bursts is transmitted in an uplink block, which would correspond similarly to claim 18, which recites that the number of downlink bursts is transmitted in the downlink block.

Claim 20 recites "...the cellular radio system..." in line 3. There is a lack of antecedent basis for this limitation in the claim.

Claims 2-18,20-22,24 and 26 are rejected because they depend on rejected base claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-11,13,15,19-21 and 23-25, as best understood, are rejected under 35

U.S.C. 102(b) as being anticipated by Scheibel, Jr. et al. (USPN 5,606,561), hereafter referred to as Scheibel.

Referring to claims 1,19,23 and 25, Scheibel, discloses a method for transmitting data on a packet data channel (packets are transmitted and received over a packet channel (see figures 9 and 10 and abstract) comprising the step of selecting the number of radio bursts, using which a data block is transmitted; from a certain set of values, which set contains at least two values (the number of packet fragments is determined based on number of available time slots and hardware capabilities (see figures 9 and 10 and abstract)).

Referring to claims 2-11,13,15,20,21 and 24 Scheibel discloses the system discussed above. Furthermore, Scheibel discloses coding each of said data blocks before transmission (voice signals from the wireless subscribers are converted into digital data and then packetized

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and framed before being transmitted (see figures 1,9 and 10)), aggregating the resulting coded data blocks to at least one aggregated coded data block (the packets are aggregated to frame (see figures 4,9 and 10)), each of which aggregated coded data blocks consists of at least one part (the frame consists of multiple parts)), a number of parts being complete coded data blocks (frames that have been transmitted are complete (see figures 4 and 9)) and a number of other parts being partial coded data blocks (packets not yet put into a frame are only partially coded (see figures 4 and 9)), and transmitting each part within an aggregated coded data block using a part-specific number of radio bursts in such a way that the sum of part-specific numbers within the aggregated coded data block is a certain predetermined number (one frame consists of 8 time slots which have corresponding numbers (see figure 4));

wherein a number of aggregated coded data blocks contain only one part, which is a complete coded data block (packets can be in a single slot in the frame and when the frame is sent the packet has been completely coded (see "single slot" in figure 6));

wherein an aggregated coded data block containing a part, which is a partial coded data block, contains only said part (when the single slot packet is not completely transmitted is only partially coded (see figure 4 and 6));

wherein the method, using which a certain data block is coded, is selected based on the number of radio bursts selected for said data block (the TDMA protocol is used to transmit the packets and their corresponding fragments (see figures 4 and 9));

wherein the number of radio bursts for transmitting a data block is selected based on the method using which said data block is coded (the number of fragments is based on the number of time slots which is related to the TDMA protocol (see figures 1,4,9 and 10));

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wherein the number of radio bursts for transmitting a data block is selected for each packet data channel and all data blocks transmitted on a packet data channel are transmitted using said selected packet data channel specific number of radio bursts (packets are fragmented and transmitted, wherein each packet corresponds to a channel (see figures 1,4,9 and 10));

wherein the number of radio bursts for transmitting a data block is selected separately for each data block (each packet is fragmented separately (see figures 9 and 10));

constructing a header for each aggregated coded data block, and transmitting the header of the aggregated coded data block using same radio bursts as the aggregated coded data block (the whole packet is fragmented, thus the header is fragmented as well (see figures 9 and 10));

constructing a header for each part within an aggregated coded data block, and transmitting each header using same radio bursts as the part related to it (each packet, inherently, has a header that corresponds to it and the packet, including the header, are fragmented and transmitted (see figures 4,9 and 10));

communicating a designation of the radio bursts, using which a part of the aggregated coded data block is transmitted, at least to the mobile station related to the connection indicated in the data block in the part (the packets that are transmitted are addressed to mobile subscribers (see column 3));

constructing a header for an aggregated coded data block, and transmitting the header of an aggregated coded data block using same radio bursts as the aggregated coded data block, and wherein the designation of radio bursts is communicated to the mobile station with said header (the packets inherently have headers that contain the address of the mobile subscriber and the packets are transmitted and received by the subscriber (see figures 1,4,9 and 10));

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wherein the designation of uplink radio bursts is communicated to the mobile station with said header (721, 731, 741) of a downlink aggregated coded data block (frames and their packets sent to the mobile subscribers by the base station have the subscribers address in them (see figures 1, 4, 9 and 10));

wherein the means (1112) for selecting the number of uplink radio bursts are means for selecting the number of uplink radio bursts as dictated by the cellular radio system (the number of fragments are decided by the base stations and mobile stations and they are part of the mobile system (see figures 1, 4, 9 and 10));

wherein the means (1112) for selecting the number of uplink radio bursts are means for selecting the number of uplink radio bursts independently (each packet is fragmented independently (see figures 1, 4, 9 and 10));

selecting the number of uplink radio bursts using which an uplink data block is transmitted (the packets are fragmented and are put into a frame (see figures 1, 4, 9 and 10)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Radimirsch et al. (USPN 6,212,202), hereafter referred to as Radimirsch.

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Referring to claim 12, Scheibel disclose the system discussed above. Scheibel does not disclose that the designation of radio bursts is signaled to the mobile station using a signaling channel different from the packet data channel. However, Radimirsch discloses a wireless system wherein signaling data is sent in a different channel than payload data (see figure 3). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in Scheibel because as Radimirsch points out in column 1 lines 55-59, a separate signaling channel will allow for a modulation type which is insensitive to Doppler shift due to the movement of the mobile stations of the system, thereby making Scheibel more robust and reliable.

8. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Barker et al. (USPN 5,931,916), hereafter referred to as Barker.

Referring to claim 14, Scheibel disclose the system discussed above. Scheibel does not disclose that the number of downlink radio bursts used to transmit a part within an aggregated coded data block is indicated for each part of said aggregated coded data block in said header of said aggregated coded data block. However, Barker discloses of a packet-based system wherein the packet headers include a fragment number, which indicates the number of packets that have been transmitted to the receiver at any given point in time (i.e. if the fragment number is 3 then the transmitter has sent 3 fragments to the receiver at that point (see claim 13)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in the Scheibel system because the fragment numbers can be used to make sure that the fragments are received in the right order, thus preventing erroneous data. This is particularly important in

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Scheibel because Scheibel processes voice calls, reproducing packets in the wrong order will make the calls sound distorted.

9. Claims 22 and 26, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Persson et al. (USPN 6,647,000), hereafter referred to as Persson.

Referring to claims 22 and 26, Scheibel disclose the system discussed above. Scheibel does not disclose that the mobile station and the network element are of the EGPRS system. However, Persson discloses a wireless system wherein the network elements operate using Enhanced GPRS (EGPRS) (see column 2 lines 1-13). It would have been obvious to one skilled in the art at the time of the invention to operate the network elements of Scheibel using the EGPRS protocol because doing so would make the system more versatile with respect to the type of service it provided and would allow the system to use the benefits of packet switching that EGPRS provides thus increasing the systems line efficiency.

Allowable Subject Matter

10. Claim 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Similarly, claim 1 would be allowable if rewritten to include all the limitations of claim 16 and the limitations of all the intervening claims. Note, claims 17 and 18 are objected to but would also be allowable since they depend on claim 16.

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Conclusion

11. The following prior art, which is made of record and not relied upon, is considered pertinent to applicant's disclosure:

- a. U.S. Patent Number 5517505 to Buchholz et al.
- b. U.S. Patent Number 5812547 to Benzmira et al.
- c. U.S. Patent Number 5475681 to White et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

December 1, 2003


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600